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(71) Applicants (*for all designated States except US*): AVIZA
TECHNOLOGY, INC. [US/US]; 440 Kings Village
Road, Scotts Valley, CA 95066 (US). INTEGRATED
PROCESS SYSTEMS, LTD. [KR/KR]; 33 Jije-dong,
Pyunglaek, Kyungki-do (KR).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): / LEE, Sang-In
[KR/US]; 22608 San Juan Road, Cupertino, CA 95014
(US). SENZAKI, Yoshihide [JP/US]; 400 Clubhouse
Drive, Aptos, CA 95003 (US). LEE, Sang-Kyoo [KR/KR];
#201, 17-22 Yangiae 1 Dong, Suhcho-Gu, Seoul (KR).

(74) Agents: SWIATEK, Maria, S. et al.; Dorsey & Whitney
LLP, 4 Embarcadero Center, Suite 3400, San Francisco, CA
94111 (US).

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(54) Title: ATOMIC LAYER DEPOSITION OF HIGH K METAL SILICATES

(57) Abstract: The present invention relates to the atomic layer deposition ("ALD") of high k dielectric layers of metal silicates, including hafnium silicate. More particularly, the present invention relates to the ALD formation of metal silicates using metal organic precursors, silicon organic precursors and ozone. Preferably, the metal organic precursor is a metal alkyl amide and the silicon organic precursor is a silicon alkyl amide.

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A. CLASSIFICATION OF SUBJECT MATTER

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US CL : 438/681, 758, 785

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

USPAT WEST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 6,465,371 B2 (LIM) 15 October 2002 (15.10.2002), column 3, lines 55-65.	1-25
Y	US 6,203,613 B1 (GATES et al) 20 March 2001 (20.03.2001), column 8, lines 10-60.	1-25



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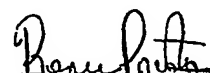
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Authorized officer

ALEXANDER G. GHYKA

Telephone No. (703) 308-0661



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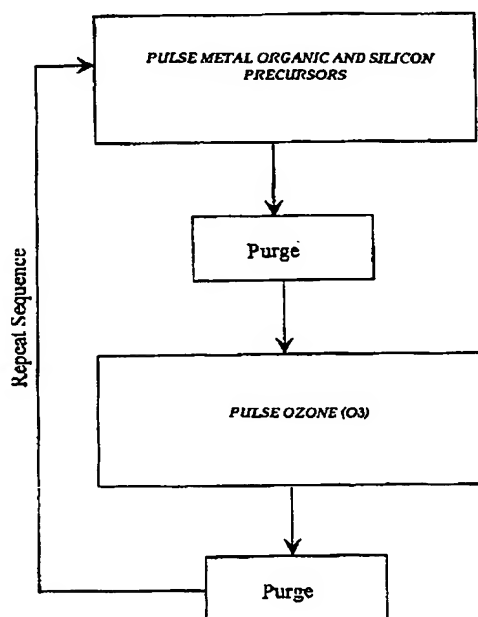
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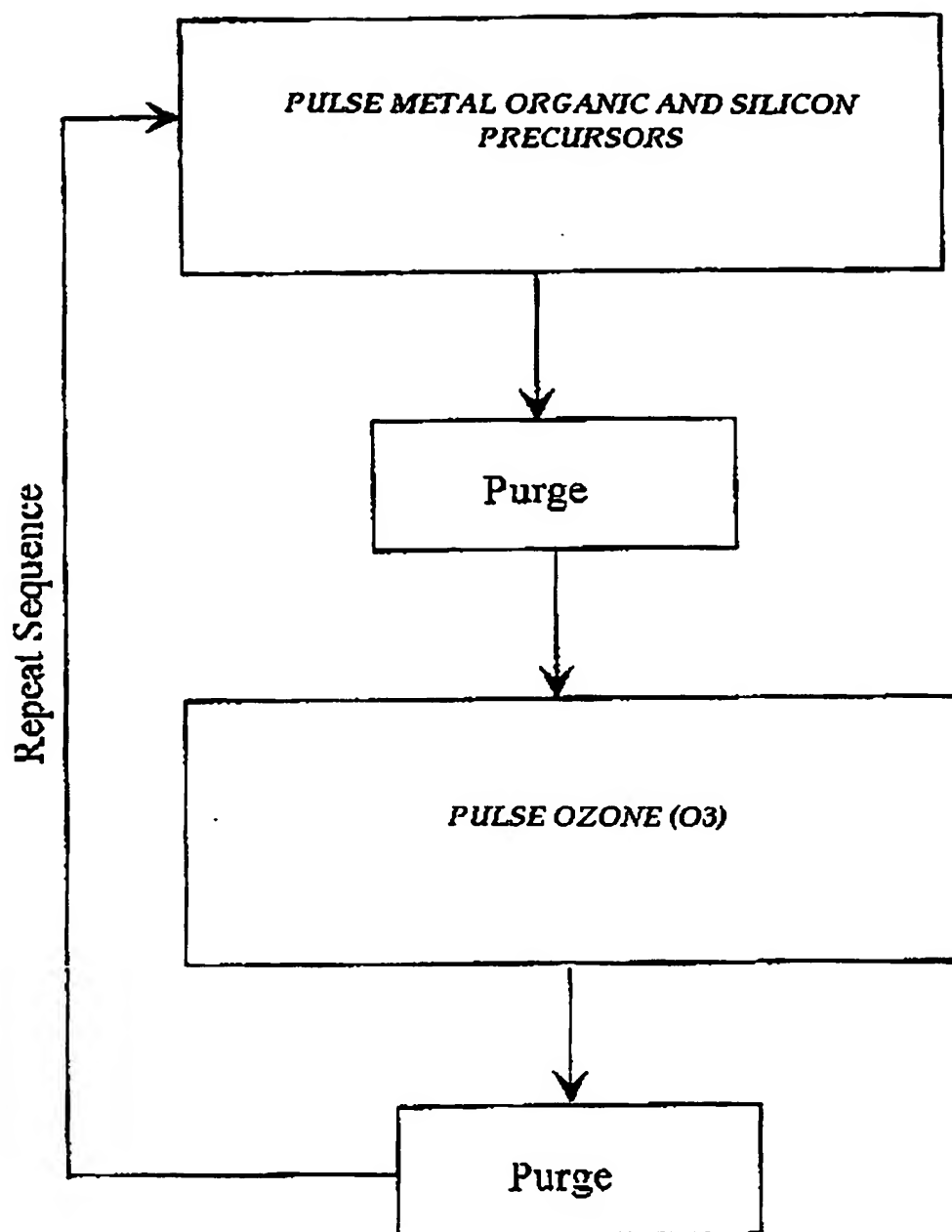
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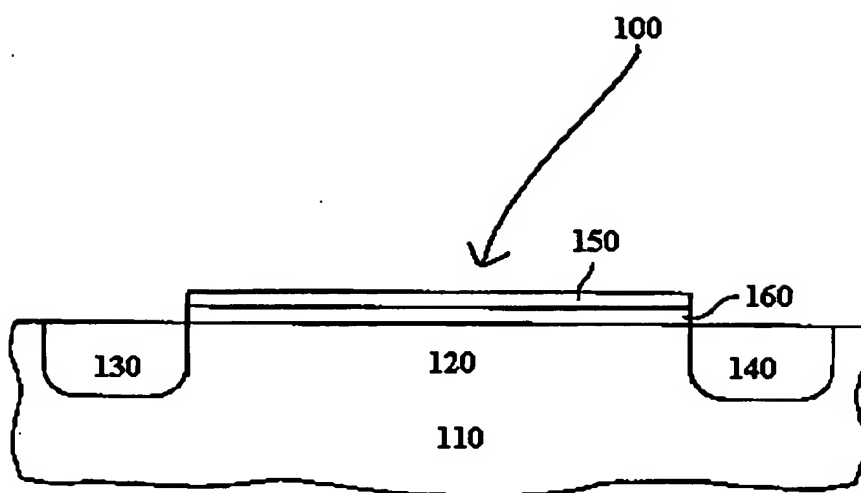
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*FIG. 1*

*FIG. 2*